REMARKS/ARGUMENTS

In the Office Action mailed April 20, 2007, claims 1-20 were rejected. Additionally, the drawings and the claims were objected to. In response, Applicants hereby request reconsideration of the application in view of the amendments and the below-provided remarks. No claims are added or canceled.

For reference, claims 2, 16, and 17 are amended to clarify antecedent basis. Claim 20 is amended to clarify a reference to the common output node. The amendments are supported, for example, by the subject matter described in the original specification in the paragraphs beginning on page 2, line 19, and page 6, line 1, as well as claim 20 and the abstract.

Objections to the Drawings

The Office Action states that Figures 1, 2, 7, 8, 10, 12, 14, 16, and 17 fail to comply with 37 C.F.R. 1.84(p)(5) because they include reference characters not mentioned in the description. In regard to the objections of Figures 1, 2, 7, 8, 10, 12, 14, 16, and 17, Applicants respectfully note that the Office Action fails to provide a proper basis for these objections. Rule 1.84(p)(5) merely requires "Reference characters not mentioned in the description shall not appear in the drawings. Reference characters mentioned in the description must appear in the drawings." However, rule 1.84(p)(5) does not require that each designation be described in a particular location of the specification or in relation to a specific figure. Applicants respectfully assert that all of the reference characters listed in the Office Action, except for the reference character "D" in Figure 7, are in fact described in the originally filed specification. Although some of the reference characters are described in conjunction with reference to different figures, one reading the specification would understand from the description of the reference characters provided in the specification the meaning of each reference character associated with Figures 1, 2, 7, 8, 10, 12, 14, 16, and 17. Applicants also submit that the specification is amended to add a description of the reference character "D." Accordingly, Applicants respectfully request that the objections to Figures 1, 2, 7, 8, 10, 12, 14, 16, and 17 be withdrawn.

Specification Guidelines

The Office Action suggests that section headings be added to the specification, according to the guidelines set forth in the MPEP. Applicants note that the suggested section headings are not required and, hence, Applicants respectfully decline to amend the specification to include the indicated section headings.

Objections to the Claims

The Office Action suggests that claim 20 be amended to recite "the common output node." Applicants appreciate the Examiner's review of the language of the claims and submit that claim 20 is amended to recite the common output node. Accordingly, Applicants respectfully request that the objection to claim 20 be withdrawn.

Claim Rejections under 35 U.S.C. 112

Claims 2, 9, 16, and 17 were rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicants regard as the invention. In particular, claim 2 was rejected because it recites the limitation "the current corresponding to the input signal" in line 3. Claim 9 was rejected because it recites the limitation "the current corresponding to the input signal" in line 3, and "the net current" in line 7. Claim 16 was rejected because it recites the limitation "the effects of gate-drain capacitance" in line 3, and claim 17 was rejected because it recites the limitation "the effects of gate drain capacitance" in lines 3-4.

In regard to the rejection of claims 2, 16, and 17, Applicants submit that claims 2, 16, and 17 are amended to conform to antecedent basis conventions. Accordingly, Applicants respectfully request that the rejections of claims 2, 16, and 17 under 35 U.S.C. 112, second paragraph, be withdrawn.

In regard to the rejection of claim 9, Applicants respectfully note that the language of claim 8 provides antecedent basis for the indicated limitations. In particular, claim 8, from which claim 9 depends, recites "the current mirror is configured to mirror current corresponding to the input signal" (emphasis added). Claim 8 also recites "a net current," (emphasis added). Therefore, Applicants submit that claim 8 provides antecedent basis for the cited limitations of claim 9. Accordingly, Applicants respectfully

request that the rejection of claim 9 under 35 U.S.C. 112, second paragraph, be withdrawn.

Claim Rejections under 35 U.S.C. 102 and 103

Claims 1-4 and 6-20 were rejected under 35 U.S.C. 102(e) as being anticipated by Singh et al. (U.S. Pat. No. 6,452,418, hereinafter Singh). Additionally, claim 5 was rejected under 35 U.S.C. 103(a) as being obvious over Singh in view of Schrader (U.S. Pat. No. 5,512,815, hereinafter Schrader). However, Applicants respectfully submit that these claims are patentable over Singh and Schrader for the reasons provided below.

As a preliminary matter, Applicants respectfully request confirmation of the statutory basis of the rejections based on the cited references. In particular, the Office Action appears to state that Singh only qualifies as prior art under 35 U.S.C. 102(e). Applicants respectfully request that the Examiner confirm whether 102(e) is the proper statutory basis for the rejection and, if so, whether Singh constitutes prior art only under 102(e).

Independent Claim 1

Claim 1 recites "a pair of diodes that are configured to decouple one of the pair of current mirrors from the input signal if a fault occurs" (emphasis added).

In contrast, Singh does not disclose a pair of diodes that are configured to decouple one of the pair of current mirrors from the input signal if a fault occurs. Singh merely discloses "diodes D1 and D2 protect the supplies Vdd1 and Vdd2 from being shorted to ground potentials G2 and G1, respectively." Singh, col. 2, lines 63-65. Singh is merely concerned with protecting voltage supplies from shorting to ground. Although Singh mentions a pair of diodes, Singh does not disclose configuring a pair of diodes to decouple one of the pair of current mirrors from the input signal if a fault occurs. In fact, it appears that Singh is silent with regard to decoupling one of the pair of current mirrors from the input signal if a fault occurs. Therefore, Singh does not disclose decoupling one of the pair of current mirrors from the input signal if a fault occurs because Singh merely discloses protecting a voltage supply from shorting to ground. Moreover, it does not appear that the diodes D1 and D2 of Singh would be capable of decoupling the current

mirrors of Singh because the diodes D1 and D2 are not located between the input currents and the current mirrors.

For the reasons presented above, Singh does not disclose all of the limitations of the claim because Singh does not disclose a pair of diodes that are configured to decouple one of the pair of current mirrors from the input signal if a fault occurs, as recited in the claim. Accordingly, Applicants respectfully assert claim 1 is not anticipated by Singh because Singh does not disclose all of the limitations of the claim.

Independent Claim 8

Claim 8 recites "a pair of diodes that are configured to select a reference voltage from one of the first system and the second system to provide a net current to the current mirror" (emphasis added).

In contrast, Singh does not disclose a pair of diodes that are configured to select a reference voltage from one of the first system and the second system to provide a net current to the current mirror. As described above, Singh merely discloses "diodes D1 and D2 protect the supplies Vdd1 and Vdd2 from being shorted to ground potentials G2 and G1, respectively." Singh, col. 2, lines 63-65. As described above, Singh is merely concerned with protecting voltage supplies from shorting to ground. Although Singh mentions a pair of diodes, Singh does not disclose a pair of diodes that are configured to select a reference voltage from one of the first system and the second system to provide a net current to the current mirror. It appears that the pair of diodes of Singh are not positioned to select reference voltages, but merely operate according to whatever voltages are presented by the current mirrors. In fact, it appears that Singh is silent with regard to selecting a reference voltage from one of the first system and the second system to provide a net current to the current mirror. Therefore, Singh does not disclose selecting a reference voltage from one of the first system and the second system to provide a net current to the current mirror because Singh merely discloses protecting a voltage supply from shorting to ground.

For the reasons presented above, Singh does not disclose all of the limitations of the claim because Singh does not disclose a pair of diodes that are configured to select a reference voltage from one of the first system and the second system to provide a net

current to the current mirror, as recited in the claim. Accordingly, Applicants respectfully assert claim 8 is not anticipated by Singh because Singh does not disclose all of the limitations of the claim.

Independent Claim 19

Applicants respectfully assert independent claim 19 is not anticipated by Singh at least for similar reasons to those stated above in regard to the rejection of independent claim 1. In particular, claim 19 recites "providing a pair of diodes that are configured to decouple one of the pair of current mirrors from the input signal if a fault occurs" (emphasis added).

Here, although the language of claim 19 differs from the language of claim 1 and the scope of claim 19 should be interpreted independently of claim 1, Applicants respectfully assert that the remarks provided above in regard to the rejection of claim 1 also apply to the rejection of claim 19. Accordingly, Applicants respectfully assert claim 19 is not anticipated by Singh because Singh does not disclose providing a pair of diodes that are configured to decouple one of the pair of current mirrors from the input signal if a fault occurs.

Independent Claim 20

Applicants respectfully assert independent claim 20 is not anticipated by Singh at least for similar reasons to those stated above in regard to the rejection of independent claim 8. In particular, claim 20 recites "selecting a reference voltage from one of the first system and the second system via a pair of diodes in the level shifter, to provide a net current to the current mirror" (emphasis added).

Here, although the language of claim 20 differs from the language of claim 8 and the scope of claim 20 should be interpreted independently of claim 8, Applicants respectfully assert that the remarks provided above in regard to the rejection of claim 8 also apply to the rejection of claim 20. Accordingly, Applicants respectfully assert claim 20 is not anticipated by Singh because Singh does not disclose selecting a reference voltage from one of the first system and the second system via a pair of diodes in the level shifter, to provide a net current to the current mirror.

Dependent Claims

Claims 2-7 and 9-18 depend from and incorporate all of the limitations of the corresponding independent claims 1 and 8. Applicants respectfully assert claims 2-7 and 9-18 are allowable based on allowable base claims. Additionally, each of claims 2-7 and 9-18 may be allowable for further reasons, as described below.

In regard to claim 2, Applicants respectfully submit that claim 2 is not anticipated by Singh because the cited reference does not disclose all of the limitations of the claim. It should be noted that even though the Office Action asserts that Singh describes at least one of the limitations of claim 2 there is no explanation in the Office Action as to what subject matter of Singh purportedly describes at least one of the limitations of claim 2.

Claim 2 recites "the pair of current mirrors comprise transistors that are all of a same channel-type" (emphasis added). In contrast, Singh in general discloses that transistors Pt1, Pt2 and Nt1, Nt2 are configured in a current mirror configuration. Singh, col. 2, lines 58-60. However, it appears that Singh makes no mention as to the type of transistor implemented in Pt1, Pt2 or Nt1, Nt2. Although Singh makes no mention as to transistor type, it would appear by the reference characters of Singh that the transistors Pt1 and Pt2 could be understood to be p-type transistors and the transistors Nt1 and Nt2 could be understood to be n-type transistors. Therefore, Singh does not disclose the pair of current mirrors include transistors that are all of a same channel-type because Singh merely discloses a pair of current mirrors. Accordingly, Applicants respectfully assert that claim 2 is not anticipated by Singh because Singh does not disclose "the pair of current mirrors comprise transistors that are all of a same channel-type," as recited in claim 2.

In regard to claim 3, Applicants respectfully submit that claim 3 is not anticipated by Singh because the cited reference does not disclose all of the limitations of the claim. Claim 3 recites "the pair of diodes are further configured to split current from the input signal to provide substantially half the current to each of the pair of current mirrors when the fault does not occur" (emphasis added). In contrast, the cited portion of Singh merely discloses equal and opposite current flows to avoid current flow through the ground path Rgnd. However, there is no description of the equal and opposite current flows resulting from splitting current from the input signal to provide substantially half the current to

each of the pair of current mirrors when the fault does not occur. In fact, Singh appears silent with regard to splitting current from an input signal to provide substantially half the current to each of a pair of current mirrors. Therefore, Singh does not disclose splitting current from an input signal to provide substantially half the current to each of a pair of current mirrors. Accordingly, Applicants respectfully assert that claim 3 is not anticipated by Singh because Singh does not disclose "the pair of diodes are further configured to split current from the input signal to provide substantially half the current to each of the pair of current mirrors when the fault does not occur," as recited in claim 3.

In regard to claim 5, Applicants respectfully submit that claim 5 is patentable over the combination of Singh and Schrader because the combination of cited references does not teach all of the limitations of the claim. Claim 5 recites "a third diode (D3) that is configured to decouple the first current mirror from the common output node if the fault occurs" (emphasis added). The Office Action concedes that Singh does not disclose a third diode. Office Action, page 12. Nonetheless, the Office Action rejects claim 5, contending that the secondary citation to Schrader provides this necessary disclosure. Office Action, page 12. This contention is respectfully traversed.

In contrast to claim 5, the cited portion of Schrader (Fig. 2A) merely teaches a single diode, D1. Schrader does not teach more than one diode. Therefore, even if this citation were understood to teach decoupling a current mirror, in general, Schrader nevertheless fails to teach a third diode, as recited in the claim. Moreover, the Office Action provides no explanation how the single diode of Schrader could be combined with Singh or where the single diode of Schrader could be placed in Singh to provide a third diode to decouple a current mirror.

Accordingly, Applicants respectfully assert that claim 5 is patentable over Schrader and Singh because Schrader does not teach "a third diode (D3) that is configured to decouple the first current mirror from the common output node if the fault occurs," as recited in claim 5.

CONCLUSION

Applicants respectfully request reconsideration of the claims in view of the amendments and remarks made herein. A notice of allowance is earnestly solicited.

At any time during the pendency of this application, please charge any fees required or credit any over payment to Deposit Account **50-3444** pursuant to 37 C.F.R. 1.25. Additionally, please charge any fees to Deposit Account **50-3444** under 37 C.F.R. 1.16, 1.17, 1.19, 1.20 and 1.21.

Respectfully submitted,

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